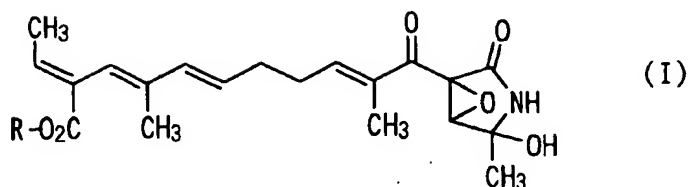


CLAIMS

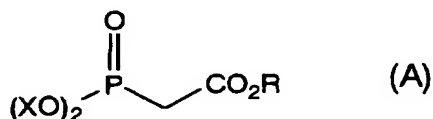
1. A compound represented by the following general formula (I):



(wherein R represents a linear, branched, or cyclic alkyl or aryl group).

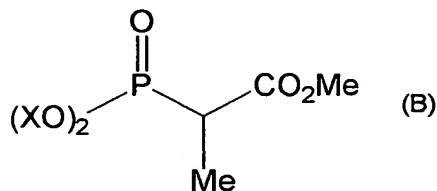
2. The compound according to claim 1, wherein R in the general formula (I) is a linear, branched, or cyclic alkyl group.
3. The compound according to claim 1, wherein R in the general formula (I) is a linear, branched, or cyclic alkyl group having 1 to 6 carbon atoms.
4. The compound according to claim 1, wherein R in the general formula (I) is a tert-butyl group.
5. A process for producing the compound according to any one of claims 1 to 4, comprising:
(1) reacting tetrahydropyran-2-ol with (ethoxycarbonylethylidene) triphenylphospholane;

- (2) protecting a free hydroxyl group of the reaction product from (1);
- (3) transforming a hydroxymethyl group of the reaction product from (2) into a formyl group;
- (4) reacting the reaction product from (3) with phosphonoacetic acid ester represented by the following general formula (A):



(wherein R and X each represent a linear, branched, or cyclic alkyl or aryl group);

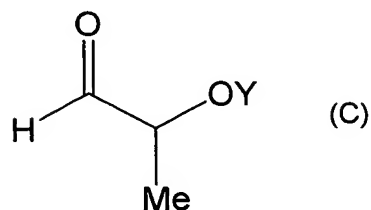
- (5) reacting the reaction product from (4) with a base and acetaldehyde;
- (6) formally dehydrating the reaction product from (5);
- (7) deblocking a protecting group of the reaction product from (6);
- (8) oxidizing the reaction product from (7);
- (9) reacting the reaction product from (8) with phosphonopropionic acid methyl ester represented by the following general formula (B):



(wherein X is synonymous with the foregoing);

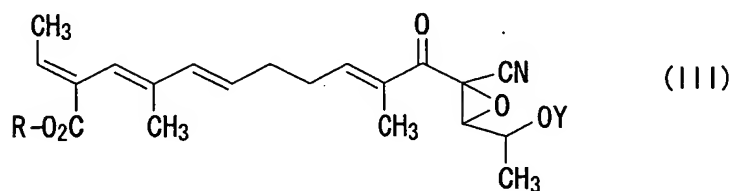
- (10) reacting the reaction product from (9) with acetonitrile in the presence of a base;

(11) reacting the reaction product from (10) with propanal represented by the following general formula (C):



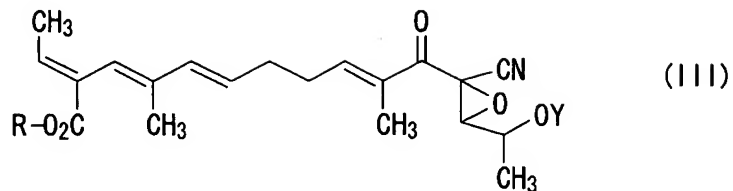
(wherein Y represents a protecting group of a hydroxyl group);
 (12) epoxidizing the reaction product from (11);
 (13) deblocking a protecting group of the reaction product from (12);
 (14) dehydrating a cyano group from (13); and
 (15) lactamizing the reaction product from (14).

6. A compound represented by the following general formula (III):

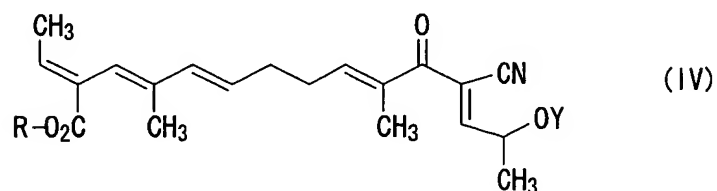


(wherein R and Y are synonymous with the foregoing).

7. A process for producing a compound represented by the following general formula (III):



(wherein R and Y are synonymous with the foregoing), comprising reacting a compound represented by the following general formula (IV) :



(wherein R and Y are synonymous with the foregoing) with peroxide capable of stereoselectively epoxidizing the compound.

8. A pharmaceutical agent containing the compound according to any one of claims 1 to 4 as an active ingredient.

9. The pharmaceutical agent according to claim 8, which is an antitumor agent.